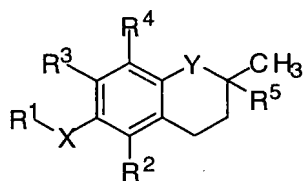


AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A method for the ~~treatment of a cell proliferative disease inhibiting the growth of tumor cells in an individual~~ comprising administering to ~~an~~ the individual a pharmacologically effective dose of a compound having a structural formula



wherein X is oxygen or nitrogen;

Y is oxygen or NR⁶

R¹ is -C₁₋₁₀alkylene-COOH, -C₁₋₄alkylene-CONH₂, -C₁₋₄alkylene-COO-C₁₋₄alkyl, -C₁₋₄alkylene-CON(C₁₋₄alkylene-COOH)₂, -C₁₋₄alkylene-OH, -C₁₋₄alkylene-NH₃-halo or -C₁₋₄alkylene-OSO₂NH(C₁₋₄alkyl), -C₁₋₄alkylene-COO-C₁₋₄alkyl, -C₁₋₁₀alkylene-CO-SH, -C₁₋₄alkylene-CO-S(C₁₋₄alkyl), -C₁₋₄alkylene-CS-NH₂, -C₁₋₄alkylene-CO-NH_(2-n)(C₁₋₄alkyl)_n wherein n is 2 or 1, -C₁₋₄alkylene-SO₂-O(C₁₋₄alkyl), -C₁₋₄alkylene-OSO₂-O(C₁₋₄alkyl), -C₁₋₄alkylene-OP(O-C₁₋₄alkyl)₃, or -C₁₋₁₀alkylene-CN;

R² and R³ are independently hydrogen or R⁴ when R⁷ is -XR¹; or

R² and R³ are hydrogen or R² and R³ are R⁴ or R² is hydrogen and R³ is R⁴ when R⁷ is hydroxyl;

R⁴ is methyl;

R⁵ is a C₇₋₁₆ olefinic group containing 3 to 5 ethylenic bonds;

R⁶ is hydrogen or methyl; and

R⁷ is hydroxyl or -XR¹; or a pharmaceutical composition thereof.

Claim 2 (original): The method of claim 1, wherein said compound is α -tocotrienol, γ -tocotrienol or δ -tocotrienol.

Claim 3 (original): The method of claim 1, wherein said compound is 2,5,7,8-tetramethyl-2R-(4,8,12-trimethyl-3,7,11 E:Z tridecatrien) chroman-6-yloxy) acetic acid.

Claim 4 (currently amended): The method of claim 1, wherein said compound ~~exhibits an anti-proliferative effect~~

~~comprising~~ induces apoptosis, DNA synthesis arrest, cell cycle arrest, or cellular differentiation in cells comprising said tumor.

Claim 5 (currently amended): The method of claim 1, wherein said compound is administered in a dose of ~~from~~ about 1 mg/kg to about 60 mg/kg.

Claim 6 (currently amended): The method of claim 5, wherein administration of said composition is ~~selected from the group consisting of~~ oral, topical, liposomal/aerosol, intraocular, intranasal, parenteral, intravenous, intramuscular, or subcutaneous.

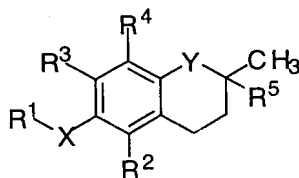
Claim 7 (canceled).

Claim 8 (currently amended): The method of claim 1 [[7]], wherein said ~~neoplastic disease is selected from the group consisting of~~ tumor cells comprise an ovarian cancer, a cervical cancer, an endometrial cancer, a bladder cancer, a lung cancer, a breast cancer, a testicular cancer, a prostate cancer, a glioma[[s]], a fibrosarcoma[[s]], a retinoblastoma[[s]], a melanoma[[s]], a soft tissue sarcoma[[s]], an ostersarcoma[[s]], a leukemia[[s]], a colon

cancer, a carcinoma of the kidney, a pancreatic cancer, a basal cell carcinoma, and or a squamous cell carcinoma.

Claims 9-13 (canceled).

Claim 14 (original): A method of inducing apoptosis of a cell, comprising the step of contacting said cell with a pharmacologically effective dose of the compound having a structural formula



wherein X is oxygen or nitrogen;

Y is oxygen or NR⁶

R¹ is -C₁₋₁₀alkylene-COOH, -C₁₋₄alkylene-CONH₂, -C₁₋₄alkylene-COO-C₁₋₄alkyl, -C₁₋₄alkylene-CON(C₁₋₄alkylene-COOH)₂, -C₁₋₄alkylene-OH, -C₁₋₄alkylene-NH₃-halo or -C₁₋₄alkylene-OSO₂NH(C₁₋₄alkyl), -C₁₋₄alkylene-COO-C₁₋₄alkyl, -C₁₋₁₀alkylene-CO-SH, -C₁₋₄alkylene-CO-S(C₁₋₄alkyl), -C₁₋₄alkylene-CS-NH₂, -C₁₋₄alkylene-CO-NH_(2-n)(C₁₋₄alkyl)_n wherein n is 2 or 1, -C₁₋₄alkylene-SO₂-O(C₁₋₄alkyl), -

C₁₋₄alkylene-OSO₂-O(C₁₋₄alkyl), -C₁₋₄alkylene-OP(O-C₁₋₄alkyl)₃, or -C₁₋₁₀alkylene-CN;

R² and R³ are independently hydrogen or R⁴ when R⁷ is -XR¹; or

R² and R³ are hydrogen or R² and R³ are R⁴ or R² is hydrogen and R³ is R⁴ when R⁷ is hydroxyl;

R⁴ is methyl;

R⁵ is a C₇₋₁₆ olefinic group containing 3 to 5 ethylenic bonds;

R⁶ is hydrogen or methyl; and

R⁷ is hydroxyl or -XR¹; or a pharmaceutical composition thereof.

Claim 15 (original): The method of claim 14, wherein said compound is α -tocotrienol, γ -tocotrienol or δ -tocotrienol.

Claim 16 (original): The method of claim 14, wherein said compound is 2,5,7,8-tetramethyl-2R-(4,8,12-trimethyl-3,7,11 E:Z tridecatrien) chroman-6-yloxy) acetic acid.

Claim 17 (canceled).